

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claims 1-3, 5 and 6 are pending. Claims 4 and 7-32 have been canceled without prejudice or disclaimer. The revisions to claim 1 are supported by original claims 4 and 7 and the disclosure at pages 18-20 of the specification.

Claims 1-6 were rejected for lack of enablement. Applicants respectfully traverse this rejection. The rejection contends that there would be an undue burden to test a large number of Ru compounds to see if they can be used as an electron carrier. While Applicants do not concede the correctness of the rejection on this issue, this point is moot in view of the revision to claim 1. Applicants respectfully contend that the present disclosure supports the Ru compounds of claim 1, noting that there is no requirement that each embodiment within the scope of the claims be included in a working example.

Claims 1-7 were rejected as indefinite. Applicants submit that this issue also is rendered moot in view of the revision to claim 1, and that claim 1 is fully understandable. Applicants are not conceding the correctness of the rejection as applied to the original claims.

Claims 1 and 4 were rejected as anticipated by Reiter. This issue is rendered moot by the inclusion of the limitation of claim 7, which was not subjected to the rejection, in claim 1. Applicants are not conceding the correctness of the rejection.

Claims 1-7 were rejected as obvious over Reiter in view of Yum and Chen. Applicants respectfully traverse this rejection.

The method of claim 1 uses the Ru compound as the electron carrier and glucose dehydrogenase as the enzyme. This permits the accurate measurement of a small amount of glucose in a short period of time.

Applicants respectfully contend that the rejection interprets the prior art and its relevance to the invention of claim 1 erroneously. Reiter merely discloses the use of PQQ(pyroloquinolnquinone)-dependent glucose dehydrogenase labeled (or coordinated) with a Ru complex provides desirable electrochemical and biological properties. Reiter fails to suggest the method of claim 1, which uses the Ru electron carrier and the glucose dehydrogenase to which cytochrome C is attached that is separate from the Ru electron carrier. That is, Reiter uses a glucose dehydrogenase coordinated with a Ru complex as an enzyme (referred to as "electroenzyme"), and does not use a Ru complex as an independent electron carrier.

The rejection refers to Yum as evidence that Reiter meets the requirement for glucose dehydrogenase in claim 1. However, Yum does not remedy the deficiency of Reiter noted above. Moreover, Yum in fact does not supply the teachings for which it is cited in the rejection. Yum refers only to gluconate dehydrogenase (GADH), not glucose dehydrogenase.

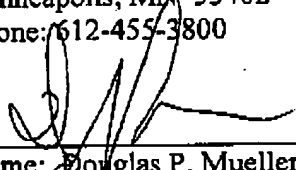
The rejection refers to Chen as suggesting the use of certain Ru compounds. However, Chen does not remedy the deficiency of Reiter noted above. Moreover, Chen also fails to supply the teachings for which it is cited in the rejection. Chen discloses a glucose oxidase combined or coordinated with a redox salt (such as $\text{Ru}(\text{NH}_3)_6^{3+}$) can be formed into a composite film that works as an enzyme electrode. This teaching has no relevance to the method of claim 1, which uses glucose dehydrogenase (GDH) as a redox enzyme and a Ru compound as an independent electron carrier.

In view of the above, Applicants request reconsideration of the application in the form of a Notice of Allowance.

Respectfully submitted,

Hamre, Schumann,
Mueller & Larson, P.C.
P.O. Box 2902-0902
Minneapolis, MN 55402
Phone: 612-455-3800

Date: March 19, 2007

By 
Name: Douglas P. Mueller
Reg. No. 30,300
Customer No. 52835